

Scarring and Cancer from Asbestos Known

Date: 1934

Source: “Types of Dust that Cause Occupational Diseases.” National Safety Council

Author: Leroy U. Gardner, M.D.

The only other type of dust which is generally recognized as a cause of severe pulmonary injury is asbestos, a silicate of magnesium. This substance is fibrous in character and is more readily soluble than quartz. Apparently the protective upper respiratory mechanisms seem inadequate to prevent the inhalation of many such fibers and even quite long ones may penetrate into the finer bronchial tubes. These structures have irregularities in their walls which seem to hold the fibrous dusts. In this location the asbestos particles are surrounded and ingested by phagocytes... Apparently most of them carry their burden of asbestos fragments directly into the walls of the tubes in which they lie. The mildly irritating dust sets up a proliferation of the connective tissue cells in the walls resulting in collar-like thickening of the tubes. Contraction of the new connective tissue narrows or closes the tube and thereby shuts off the ingress of air to the more peripheral air spaces. These spaces then collapse, a condition known as atelectasis. This in itself is a cause of fibrosis or scarring of lung tissue. The result is a fibrosis of numerous relatively small areas in the lung due to the collar-like constricting fibrosis about many small terminal bronchial tubes. Not a few cases of asbestosis die of tuberculosis or bronchopneumonia...

Exhibit Number: [NSC-SB3](#)

Scarring and Cancer from Asbestos Known

Date: 1932

Source: "The Effects of Inhaled Mineral Dusts." National Safety Council

Author: Leroy U. Gardner

What has been said of the effects of inhaled inorganic dusts would indicate that the reaction of the tissues is not merely a response to mechanical irritation by particulate matter. Today it is generally accepted that the injury is chemical in nature and that only certain of the common types of industrial dust possess properties capable of exciting reaction. In the cases of silica and the silicate of magnesium or asbestos, the slightly alkaline body fluids probably effect a slow solution of the dust particles liberating silica in colloidal form. This substance irritates the connective tissue cells which respond by multiplying. The result is an overgrowth of the supporting framework elements at the expense of the more delicate cells specialized for specific functions. (p 51)

Exhibit Number: [NSC-SB1](#)

Scarring and Cancer from Asbestos Known

Date: 1932

Source: “The Effects of Inhaled Mineral Dusts.” National Safety Council

Author: Leroy U. Gardner

Asbestos dust, perhaps because of its fibrous structure, is not transported very far within the lung. It tends to lodge along the walls of the finer tubes and little of it is removed by the lymphatic drainage system. Tissue reaction, probably initiated by the solution of fibers, occurs in their immediate vicinity. As in the case of silica this reaction consists of an overgrowth of the connective tissues which is later transformed into leather-like scars. (p 52)

Exhibit Number: [NSC-SB1](#)

Scarring and Cancer from Asbestos Known

Date: 1936

Source: “The Lesser Known Facts About Common Occupational Diseases.” National Safety Council

Author: Dr. Robert B. Hunt

Asbestosis is a disease that develops very slowly. First, dust collects in a worker’s lungs and causes changes in them. Scar tissue then begins to grow over the parts of the lungs that have been affected, in order to heal them. However, the scar tissue may not stop growing even after the lesions are healed. This scarring makes it difficult for the lungs to work, and can eventually make the lungs stop completely. By the time a worker becomes disabled from Asbestosis, it could be months or years after he has stopped working in dusty conditions.

Exhibit Number: NSC 55

Scarring and Cancer from Asbestos Known

Date: 1937

Source: “The Doctor’s Part in Controlling Dust Hazards.”
National Safety Council

Author: A.D. Lazenby, M.D.

Only a few kinds of dust can truly be considered dangerous. Asbestos dust is one of these: it produces fibrosis of the lungs and makes the victim more likely to catch respiratory infections, especially tuberculosis.

Exhibit Number: [NSC-SB5](#)

Scarring and Cancer from Asbestos Known

Date: 1935

Source: “Silicosis and Silico-Tuberculosis – Medical Problems of an Important Industrial Disease.” National Safety Council

Author: Edgar Mayer, M.D.

Silicates, as in asbestos, produce a definite change in the lung, as well as other dusts... Such changes are represented by a fibrosis brought about because... insoluble, minute particles of minerals in sufficient concentration have been brought by the activity of phagocytic cells into intimate contact with the pulmonary connective tissue. This fibrosis is a diffuse cellular one that occurs in walls of the smaller bronchi and all of their finer divisions and extends to involve the supporting connective tissue of the adjacent blood vessels and to some extent also the walls of adjacent air spaces.

(p 128)

Exhibit Number: [NSC-SB4](#)

Scarring and Cancer from Asbestos Known

Date: 1933

Source: “How to Determine the Dust Content of the Atmosphere in Dusty Industries.” National Safety Council

Author: by Dr. E.G. Meiter.

When small particles of dust are spread into the air, they swirl around like smoke and fall to the ground very slowly. A law of physics demonstrates that a very small particle will only fall 20.3 feet in 24 hours.

This shows that fine dusts that are spread into the air are not only dangerous for a few moments, but for a very long time. Workers often do not know this fact, and assume that once they can no longer see a dust cloud, the danger is all gone.

Exhibit Number: [NSC-SB2](#)

Scarring and Cancer from Asbestos Known

Date: 1933

Source: “How to Determine the Dust Content of the Atmosphere in Dusty Industries.” National Safety Council

Author: Dr. E.G. Meiter

The importance of atmospheric dust as an agent in the causation of respiratory disease has long been known. However, it is only within the last few years that this subject has achieved medical and legal importance in dusty industries. Because of the extension of compensation laws to include occupational diseases, and through an ever-increasing number of legal suits against industrial concerns by employees claiming disability due to dust inhalation, there is need for a severe attack on the problem of eliminating or otherwise combating the dust hazard. (p 39)

Exhibit Number: [NSC-SB2](#)

Scarring and Cancer from Asbestos Known

Date: 1935

Source: “Occupational Diseases Made Compensable in North Carolina.” *National Safety News*.

North Carolina amended its Workmen’s Compensation Law so that employers must now compensate (pay) workers with occupational diseases, in addition to those who suffer accidents on the job. Asbestosis is listed as a disease for which employers must compensate. North Carolina was the 12th state to change its Workmen’s Compensation Law in this way.

Exhibit Number: [NSC-SB4](#)

Scarring and Cancer from Asbestos Known

Date: 1938

Source: “The Trend of Occupational Disease Legislation.”
National Safety Council

Author: Henry D. Sayer

- Dust disease results from years of exposure, and leads to disability.
- ...Fibrosis of the lungs, once acquired, is permanent and incurable, and, in uncomplicated cases is not susceptible to medical treatment. (p 217)

Exhibit Number: [NSC-SB6](#)

Scarring and Cancer from Asbestos Known

Date: 1937

Source: “What Industrial Dusts Are Harmful? Why?”
National Safety Council

Author: Senior Surgeon R.R. Sayers.

Breathing dusts that contain silicates can be harmful to lung tissue. Asbestos dust seems to be the most dangerous of the silicate dusts – it causes more severe disease and affects more people.

Exhibit Number: [NSC-SB5](#)

Scarring and Cancer from Asbestos Known

Date: 1934

Source: “The Dust Hazards in Industry.” National Safety Council

Author: Dr. R.R. Sayers.

During the past few years, scientists have become aware that asbestos dust is dangerous. Asbestosis, a fibrosis (disease) of the lungs caused by breathing asbestos dust, has already been documented by investigators in other countries. No studies have been reported yet in the United States.

Exhibit Number: [NSC-SB3](#)

Scarring and Cancer from Asbestos Known

Date: 1937

Source: “What Industrial Dusts are Harmful? Why?”
National Safety Council

Author: Senior Surgeon R.R. Sayers

Remember these two things:

(1) You are dealing with a hazardous material so small in size and so light in weight that it is as invisible as the air that carries it.

(2) Laws of physics show that, because of the way dust acts in air, dust cannot be controlled by inexpensive methods.

Exhibit Number: [NSC-SB5](#)

Scarring and Cancer from Asbestos Known

Date: 1937

Source: “Work of the National Silicosis Conference.”
National Safety Council

Author: R. Campbell Starr

Workers who develop tuberculosis and silicosis should not continue working. The company should provide compensation payments and medical care.

Exhibit Number: [NSC-SB5](#)